

TOP SECRET NOFORN

**INTEGRATED
STRIKE & INTERDICTION
PLAN**

DESIGNATED TARGET LIST

SLIDES

SPECIAL HANDLING REQUIRED
NOT RELEASABLE TO
FOREIGN NATIONALS
The information contained
in this document will not
be disclosed to Foreign
nationals or their
representatives

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TOP SECRET NOFORN

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TOP SECRET CONTROL	
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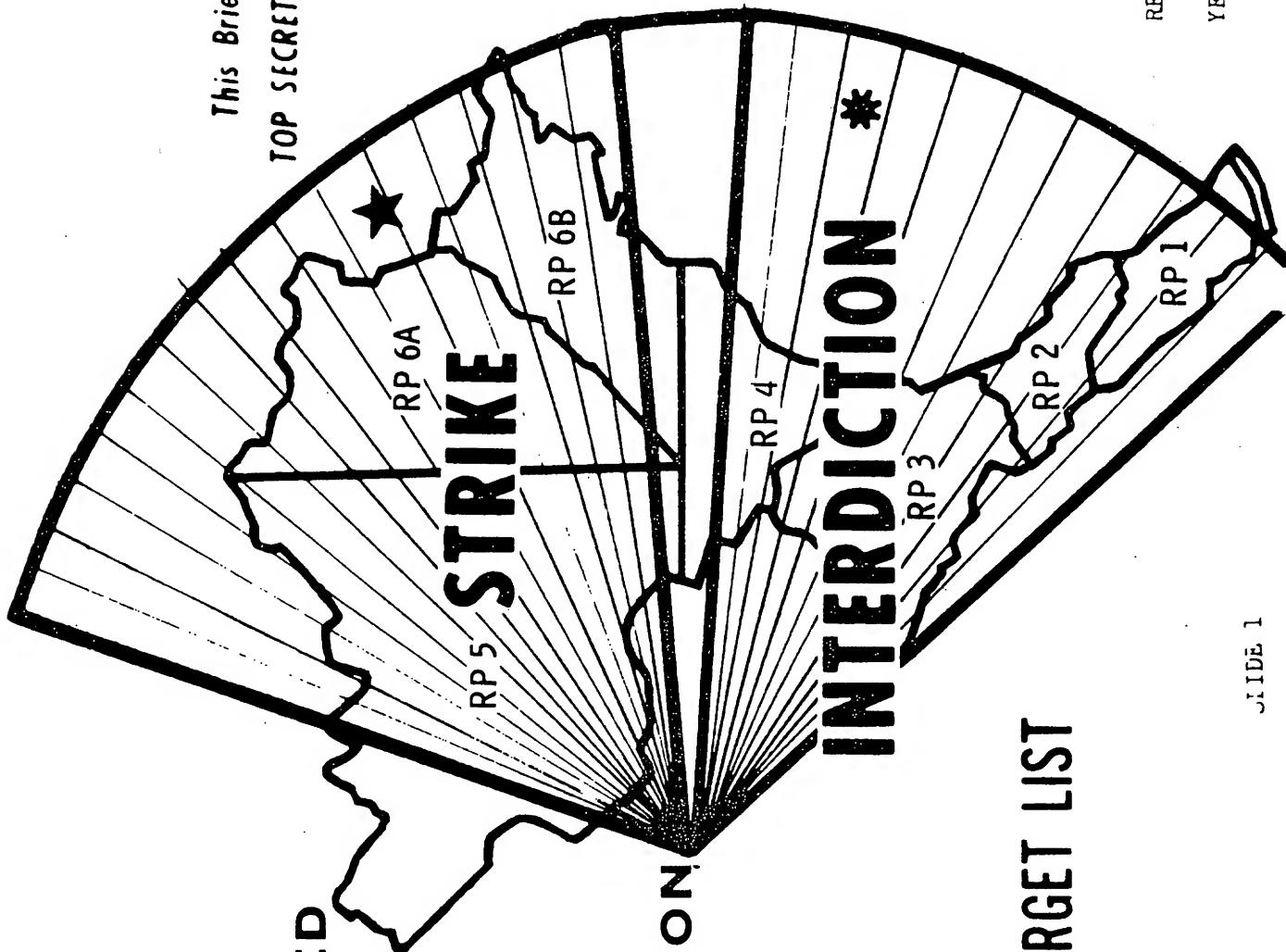
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Date 31 Oct 94

#673
701B 4023
94-103-278

This Briefing is
TOP SECRET NOFORN

INTEGRATED STRIKE and INTERDICTION PLAN

DEGRADED AT 12 YEAR TIME
NOT AUTOMATIC
DOD DATA SOURCE



LEGEND
RED
YELLOW

DESIGNATED TARGET LIST

BRIEFING ORDER

- INTRODUCTION
- TARGET GROUPINGS
- ANALYSIS METHODOLOGY
- ANALYSIS SUMMARY
- AIR CAMPAIGN
- CONCLUSIONS
- RECOMMENDATIONS

TARGET GROUPINGS STUDIED

- ELECTRICAL POWER
- AIRFIELDS
- INDUSTRIAL
- TRANSPORTATION
- MILITARY
- COMMAND AND CONTROL
- POL
- LOCKS AND DAMS
- EXTRACTIVE
PORTS

941103-281

NVN ECONOMY AND TARGET GROUPING INTERRELATIONSHIPS

- INTERRELATIONSHIPS OF THE NVN ECONOMY
- HOW THE ECONOMY OF NVN SUPPORTS TARGET GROUPINGS
- INTERRELATIONSHIPS OF TARGET TO TARGET AND TARGET GROUP TO TARGET GROUP

**SOURCES OF DATA
FOR ECONOMETRIC STUDY**

TECHNICAL DATA SOURCES INTELLIGENCE DATA SOURCES

ECONOMIC TEXTS & ARTICLES BY:

LEONTIEF DIA
THEIL CIA
BATOR RAND CORP.
SAMUELSON DEPT. OF COMMERCE
SOLOW DEPT. OF INTERIOR
BAUMOL NPIC
 NSA

INDUSTRIAL TEXTS & ARTICLES RELATING TO:
OTHER DOD AGENCIES

MINING & METALLURGY
INDUSTRIAL PROCESSES
AGRICULTURE
FORESTRY
INDUSTRIAL CHEMISTRY
OTHER EMPIRICAL WORKS

CONSULTANTS:

DIA
CIA
RAND CORP.
AIR STAFF AGENCIES
OTHER GOV'T. AGENCIES

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THE ECONOMETRIC TECHNIQUE

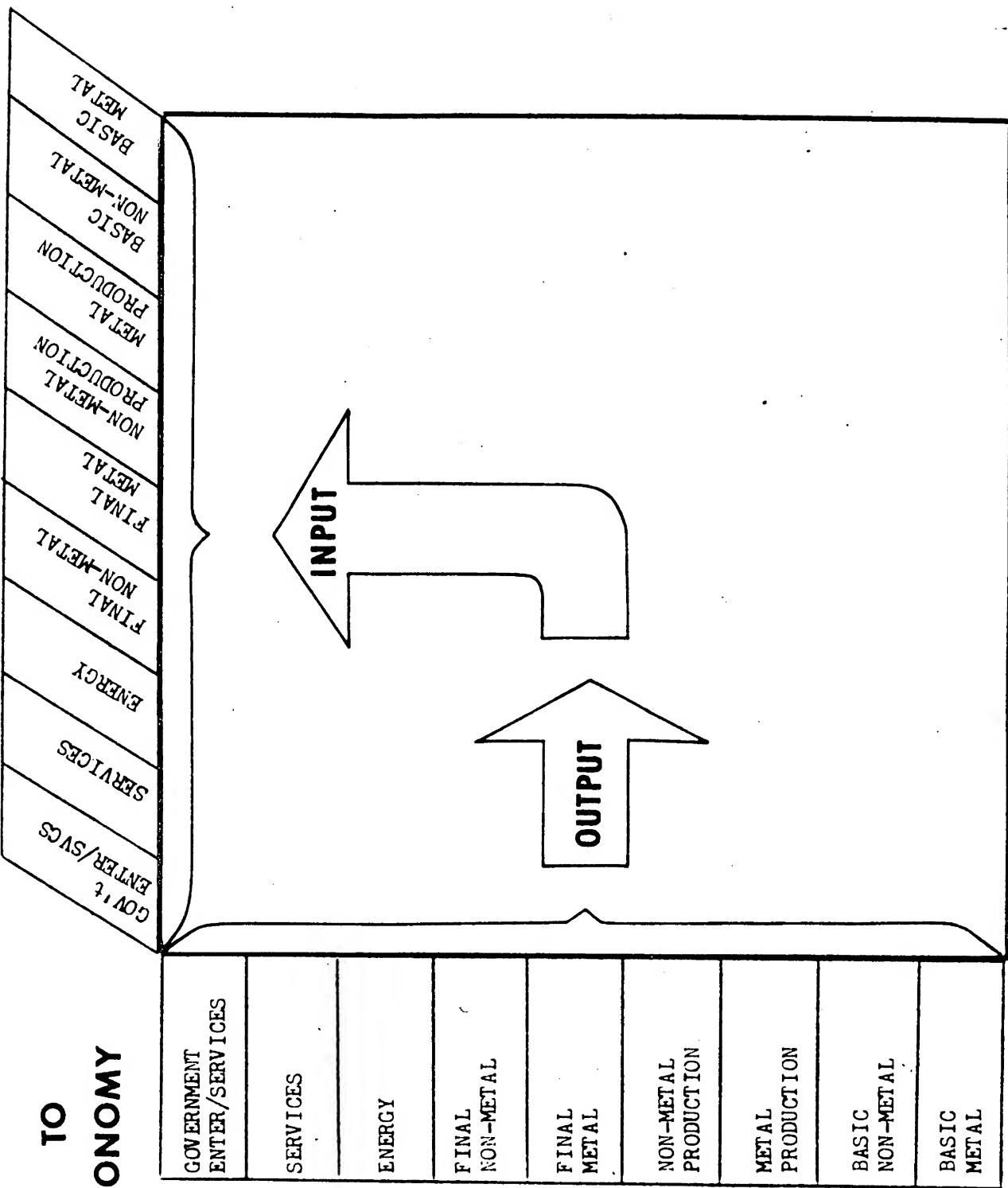
SYSTEMATICALLY:

- IDENTIFIES COMMODITIES REQUIRED FOR SUPPORT OF THE NVN ECONOMY AND MILITARY OBJECTIVES.
- DEFINES THE SOURCE OF THE COMMODITY AS DOMESTIC OR IMPORT.
- SHOWS HOW THE COMMODITY IS DISTRIBUTED.
- SHOWS HOW AND WHERE THE COMMODITY IS USED.

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INPUT/OUTPUT MATRIX

ECONOMY
TO
ECONOMY

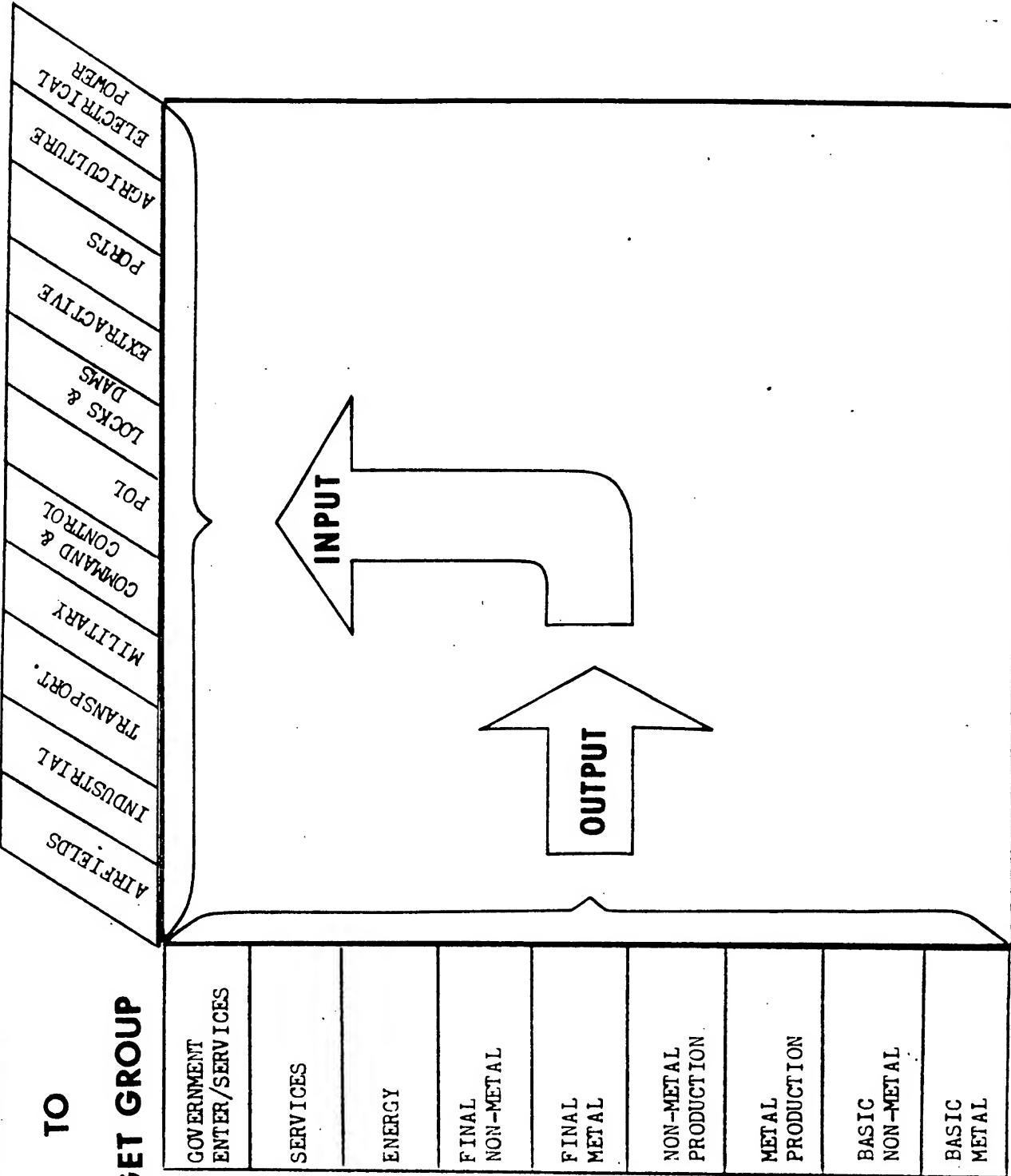


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INPUT/OUTPUT MATRIX

ECONOMY

TO
TARGET GROUP



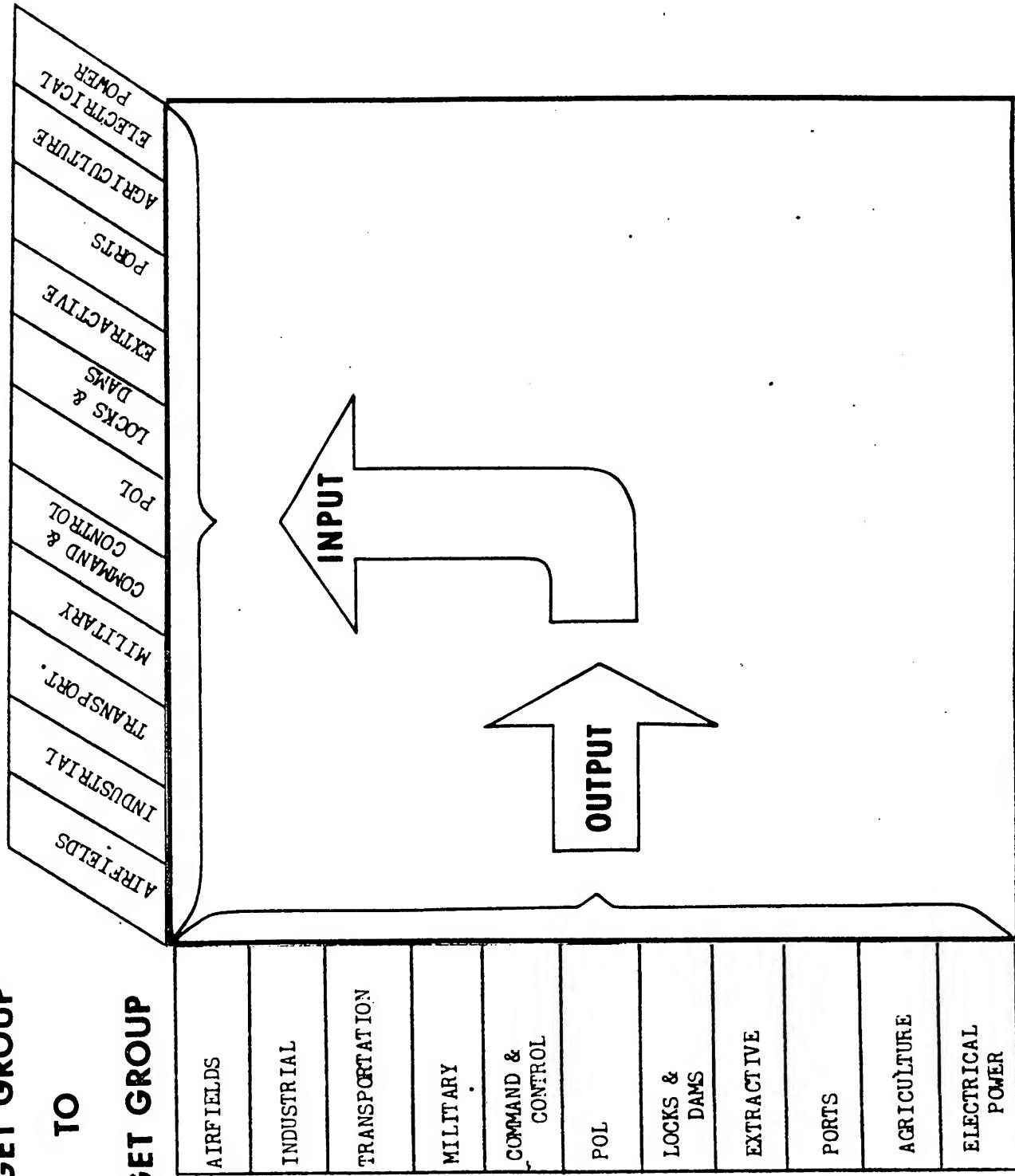
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INPUT/OUTPUT MATRIX

TARGET GROUP

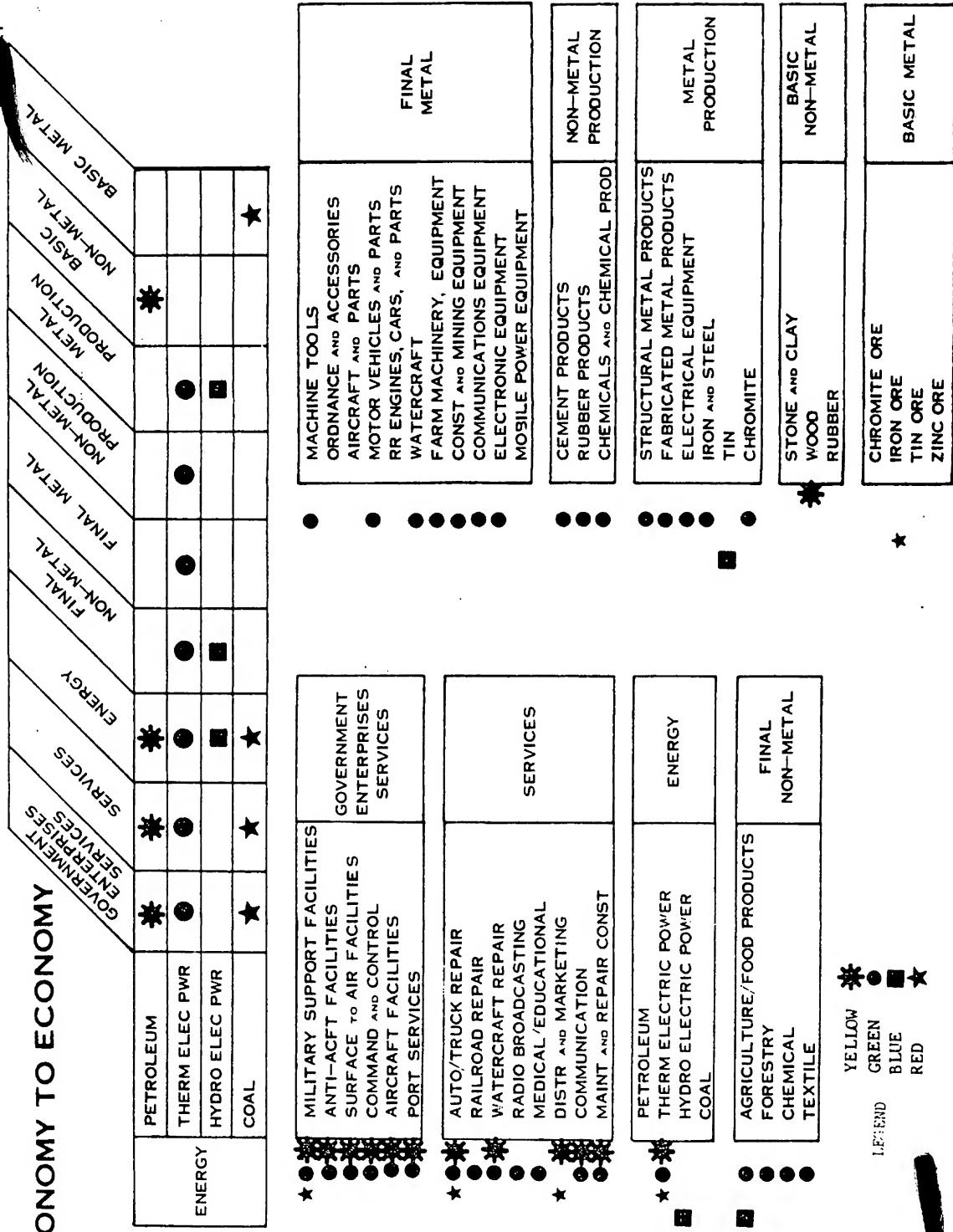
TO

TARGET GROUP



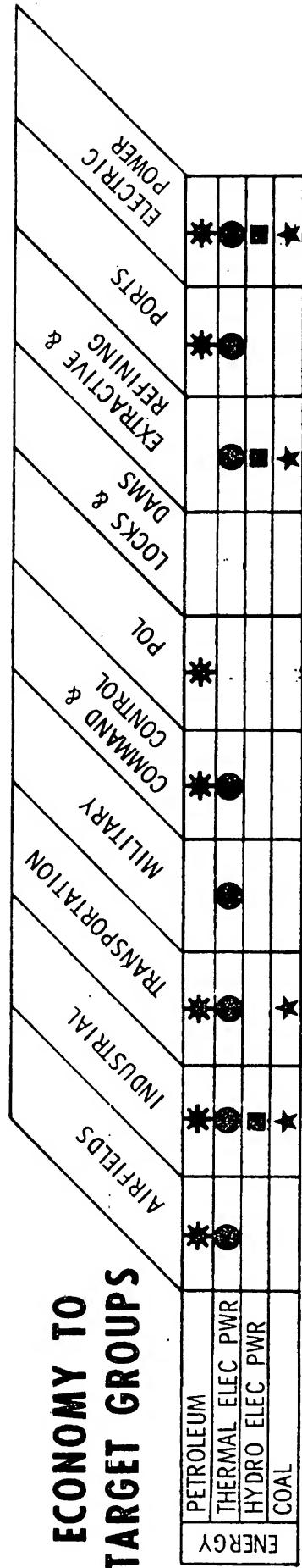
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ECONOMY TO ECONOMY



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ECONOMY TO TARGET GROUPS



● * SAM	● * AAA	● * RADAR	● COMMAND & CONTROL
● * POL	● * POL	● POL	● POL
● LOCKS & DAMS	● CLAY	● LIMESTONE	● EXTRACTIVE & REFINING
● CHROMITE	● COAL	● SALT	● IRON
● TIN	★ ★ PORTS	● ZINC	● PORTS
● ★ PORTABLE	● ★ FIXED	● ELEC. POWER	● ELEC. POWER
LEGEND	YELLOW ■	GREEN ●	BLUE ■
LEGEND	RED ★		

RELATIONSHIP OF TARGET GROUP TO TARGET GROUP

	AIRFIELDS	INDUSTRIAL	TRANSPORTATION	MILITARY	COMMAND & CONTROL	POL	LOCKS & DAMS	COAL	APATITE	CHROMITE	OTHER	PORTS	ELEC. POWER	PORTABLE	FIXED
ELECTRIC POWER						*									
PORTS															
EXTRACTIVE							*								
LOCKS & DAMS							*								
MILITARY						*	*								
TRANSPORTATION						*	*								
INDUSTRY						*	*								
COMMAND & CONTROL						*	*								
POL						*									
LOCKS & DAMS							*								
COAL								*							
APATITE									*						
CHROMITE										*					
OTHER											*				
PORTS												*			

LEGEND
 YELLOW #
 RED ★
 GREEN ●

941103-290

ENERGY CATEGORY ANALYSIS

PETROLEUM:

- CONTRIBUTES SIGNIFICANTLY TO ECONOMIC AND MILITARY OPERATIONS
- A SOURCE OF ENERGY TO DRIVE PORTABLE POWER PLANTS.
- IS 100% IMPORTED.
- STORAGE POINTS ARE TOO WIDELY DISPERSED TO LOCATE AND DESTROY WITH AIR POWER.

SLIDE 11

941103-291

ENERGY CATEGORY ANALYSIS

THERMAL ELECTRIC POWER (FIXED/PORTABLE)

- CONTRIBUTES SIGNIFICANTLY TO ECONOMIC AND MILITARY OPERATIONS
- FIXED POWER PLANTS, (COAL FIRED) PRODUCE 89% OF THE NVN NATIONAL CAPACITY
- DESTRUCTION OF FIXED POWER PLANTS WOULD NEGATE THE IMPORTANCE OF COAL AS A TARGET SYSTEM WITHIN THE ENERGY CATEGORY.
- FIXED POWER PLANTS CAN BE EFFICIENTLY AND EFFECTIVELY ATTACKED WITH AIR POWER.
- PORTABLE POWER PLANTS ARE TOO NUMEROUS AND WIDELY DISPERSED TO LOCATE AND DESTROY WITH AIR POWER AND MUST BE NEUTRALIZED THROUGH DENIAL OF POL.
- THE ENTIRE FIXED POWER SYSTEM MUST BE ATTACKED.
 - USE OF THE BACK-UP SYSTEM, PORTABLE POWER, MUST BE DENIED TO THE ENEMY.

ENERGY CATEGORY ANALYSIS

HYDRO ELECTRIC POWER:

- TWO PLANTS EXIST; COLLECTIVELY THEY PRODUCE ONLY 2.4% OF THE TOTAL NATIONAL ELECTRIC ENERGY CAPACITY.
- BOTH PLANTS CAN BE EFFICIENTLY AND EFFECTIVELY ATTACKED WITH AIR POWER.

SLIDE 13

941103-293

ENERGY CATEGORY ANALYSIS

COAL:

- IS DOMESTICALLY PRODUCED IN SUFFICIENT QUANTITIES TO SATISFY NVN REQUIREMENTS AS A SOURCE OF ENERGY TO DRIVE THERMAL POWER PLANTS AND TO PROVIDE AN EXPORT COMMODITY.
- SOURCES, (MINES) ARE TOO NUMEROUS AND DISPERSED TO CONSTITUTE A SYSTEM FOR ATTACK BY AIR POWER .
- IMPORTANCE REDUCED AS AN ENERGY SOURCE IF "END USE" FACILITIES, FOR EXAMPLE, FIXED THERMAL POWER PLANTS, ARE DESTROYED.

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ENERGY CATEGORY ANALYSIS SUMMARY

- MAXIMUM IMPACT CAN ONLY BE ACHIEVED IF BOTH THE FOLLOWING ACTIONS ARE TAKEN:
 - a. DESTRUCTION OF FIXED POWER PLANTS.
 - b. ELIMINATION OF POL IMPORTS.

TARGET TO TARGET

EXTRACTIVE		COMMAND & POST		RADAR		SAM		AAA		SUPPLY		BARRACKS		ROAD		WATER		OTHER INDUSTRY		RUBBER		TEXTILES		CEMENT		IRON & STEEL		CHEMICAL		A/C SUPPORT		AIRCRAFT		PORTABLE		COMMAND CONTROL		TRANSPORTATION		INDUSTRIAL		POWER FIELDS		AIR		ELEC PWR		TARGET TO TARGET	
LOCK & DAMS	LIMESTONE	CLAY	PHOSPHATES	COAL	SALT	IRON	CHROMITE	TIN	ZINC	PORTS	EXTRACTIVE	COMMAND & POST	RADAR	SAM	AAA	SUPPLY	BARRACKS	ROAD	WATER	OTHER INDUSTRY	RUBBER	TEXTILES	CEMENT	IRON & STEEL	CHEMICAL	A/C SUPPORT	AIRCRAFT	PORTABLE	COMMAND CONTROL	TRANSPORTATION	INDUSTRIAL	POWER FIELDS	AIR	ELEC PWR	TARGET TO TARGET														

941103-296

CHARACTER OF THE NVN ECONOMY

- BASED PRIMARILY ON AGRICULTURE WHICH:
 - EMPLOYS 50% OF THE LABOR FORCE
 - PROVIDES 45% OF THE GNP
- FACTORY INDUSTRY PROVIDES 10-15% OF GNP
- HANDICRAFT/COTTAGE INDUSTRY PROVIDES 10% OF GNP
- TRANSPORTATION, COMMERCE AND SERVICES GENERATE 35% OF GNP
- HIGHLY SUBSIDIZED AND DEPENDENT UPON IMPORTS

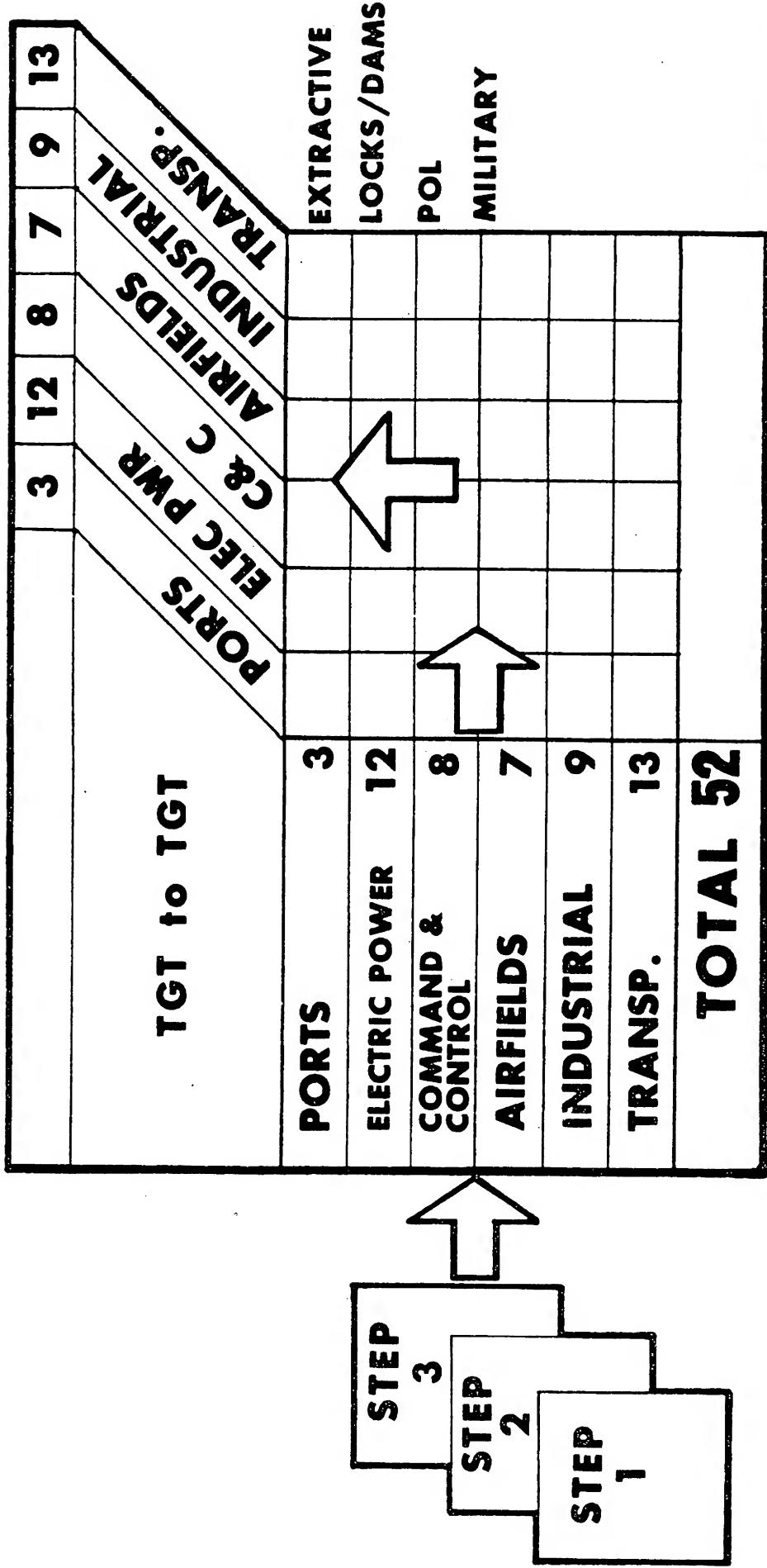
SLIDE 17

941103-297

ECONOMY TO TARGET-GROUP

		INDUSTRIAL		TRANSF.		MILITARY		CMD...nCONT		LOCKSM'DAMNS		RADAR POST		CLAY MINE		LIMESTONE MINE		PHOSPHATE MINE		SALT MINE		CHROMITE MINE		TIN MINE		ZINC MINE		EXTRACTIVE		FINAL		NON-METAL					
		ELEC		AIR		INDUSTRIAL		TRANSF.		MILITARY		CMD...nCONT		LOCKSM'DAMNS		RADAR POST		CLAY MINE		LIMESTONE MINE		PHOSPHATE MINE		SALT MINE		CHROMITE MINE		TIN MINE		ZINC MINE		EXTRACTIVE		FINAL		NON-METAL	
		●																																			

TGT SELECTION



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SECRET

AIR CAMPAIGN

DESIGNATED

TARGET

LIST

SLIDE 20

941103-300

~~SECRET~~

DESIGNATED TARGET LIST

COMMAND & CONTROL TARGET SYSTEM

TARGETS	SORTIES	DIRECT EFFECT	COST	COLLATERAL EFFECT
1. Hanoi ADD	19	1. Eliminates Primary Control Facility		1. GCI SITES 2. EW Sites 3. SAM Battalions 4. Airfields W/Air Defense Facilities
2. Hanoi Intl Radcom XMTR (JCS 66)	4	2. Destroys Vital Transmitter	Sorties 89	5. AAA Radar 6. Hanoi MND
3. Hanoi HF Telecom Site (JCS 66.1)	26	3. Destroys Vital Command Transmitter	Aircraft Attrition 1.2	7. Vulnerability of All Targets Increased
4. Hanoi Intl Radcom RCVR (JCS 67)	12	4. Destroys Vital Radio Receiver		
5. Vinh Filter Center	7	5 Neutralizes Control Facility		
6. Nam Din Filter Center	7	6. Neutralizes Control Facility		Civilian Casualties 27
7. Filter Center	7	7. Neutralizes Control Facility		
8. Filter Center	7	8. Neutralizes Control Facility		

DESIGNATED TARGET LIST

AIRFIELD TARGET GROUP

TARGETS	SORTIES	DIRECT EFFECT	COST	COLLATERAL EFFECT
1. Phuc Yen	40			1. Increases Target Vulnerability
2. Kep	21		Sorties 160	2. Hanoi ADD
3. Cat Bi	34			3. Filter Centers
4. Kien An	33	Neutralizes All Major Tactical and Transport Airfields Except Gia Lam	Attrition Aircraft 3.1	4. GCI Radar
5. Bac Ma	8			5. EW Radar
6. Kep Ha	12			6. Hanoi MND
7. Hoa Loc	12			Civilian Casualties 17

DESIGNATED TARGET LIST

PORT TARGET SYSTEM

TARGETS	SORTIES	DIRECT EFFECT	COST	COLLATERAL EFFECT
1. Haiphong	225/29	1. Affects 80% of Maritime Shipping		1. Airfields 2. Viet Tri Chemical
2. Hon Gai	93/15	2. Eliminates Export of Coal and Alternate Import Facilities	Sorties 395 Bombing 50 Mining	3. Thai Nguyen Iron & Steel 4. Hanoi Machine Tool 5. Haiphong Cement 6. Haiphong Phosphate 7. Phu Tho Chemical 8. Bac Giang Chemical 9. Nam Ninh Textile
3. Cam Pha	77/6		Aircraft Attrition 7.7	10. POL 11. Iron, Phosphate, Coal Mines 12. Military Munitions 13. Filter Centers 14. GCI Sites 15. EW Sites 16. SAM Battalions 17. AAA Units

Civilian Casualties
432

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041103-303

DESIGNATED TARGET LIST

ELECTRICAL TARGET SYSTEM

TARGETS	SORTIES	DIRECT EFFECT	COST	COLLATERAL EFFECT
1. Hanoi XFMR	29	1. Destroys Main Switching Station		1. Haiphong Port 2. Hon Gai Port 3. Cam Pha Port 4. Airfields 5. Viet Tri Chemical 6. Thai Nguyen Iron & Steel
2. Hanoi TPP	28		Sorties 276	7. Hanoi Machine Tool 8. Haiphong Cement 9. Haiphong Phosphate 10. Phu Tho Chemical 11. Bac Giang Chemical 12. Hanoi Rubber 13. Phu My Zinc 14. Cu Van Iron Ore 15. Lang Nhon Apatite Mine
3. Viet Tri TPP	26			
4. Hon Gai TPP	24			
5. Bac Giang TPP	28			
6. Thai Nguyen TPP	26			
7. Haiphong W TPP	26		Aircraft Attrition 5	
8. Haiphong E TPP	23	2. Destroys 90.7% of Total Capacity		
9. Phu Ly TPP	23			
10. Lao Cai TPP	25			
11. Ta Sa Na Ngan H.P	9			
12. Ta Sa HPP	9			

Civilian Casualties
139

- 13. Tin Tuc Tin Smelter
- 14. Military Installations
- 15. Command & Control
- 16. Transportation Targets

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DESIGNATED TARGET LIST

INDUSTRIAL TARGET GROUP

TARGETS	SORTIES	DIRECT EFFECT	COST	COLLATERAL EFFECT
1. Viet Tri Chemical	62	1. Neutralizes 58% Chemical Production		1. Haiphong Port
2. Thai Nguyen Iron & Steel	121	2. Neutralizes Iron & Steel Production		2. Hon Gai Port
3. Hanoi Machine Tool	57	3. Neutralizes Machine Tool Production	Sorties 514	3. Cam Pha Port
4. Haiphong Cement	23	4. Neutralizes Cement Production		4. Ben Thuy Port
5. Haiphong Phosphate	8	5. Neutralizes Fertilizer Production	Aircraft Attrition 8	5. Phuc Loi Port
6. Phu Tho Chemical	92	6. Neutralizes Most Modern Chemical Plant		6. Port Wallut
7. Bac Giang Chemical	88	7. Neutralizes Major Chemical Plant		7. Airfields
8. Nam Dinh Textile	31	8. Neutralizes Largest Textile Production Facility		8. POL
9. Hanoi Rubber	26	9. Neutralizes Largest Rubber Production Facility		9. Military Installations
				10. SAM Support Facility
				11. Transportation
				Civilian Casualties 353

941103-305

~~Top Secret~~
DESIGNATED TARGET LIST

TRANSPORTATION

(LOC's)

TARGETS	SORTIES	DIRECT EFFECT	COST	COLLATERAL EFFECT
Road Bridges (8)	227	Impedes Logistic Movement into North Vietnam	Sorties 311	1. Ports 2. Airfields 3. Nav Locks & Dams 4. Industrial Targets 5. POL Targets 6. Extractive Targets 7. Military Installations 8. Civilian Casualties 63
Rail Bridges (2)	48		Aircraft Attrition 3. 5	
Waterways (3)	36			

RECOMMENDED CAMPAIGN SUMMARY

TARGETS	52
STRIKE SORTIES	1795
AIRCRAFT ATTRITION	29
CIVILIAN CASUALTIES	1031

SLIDE 27

Q41103-307

RESTRIKE REQUIREMENTS

<u>SYSTEM</u>	<u>NUMBER TARGETS</u>	<u>TIME INTERVAL FOR RESTRIKE</u>	<u>RESTRIKE SORTIE REQUIREMENT</u>
ELECTRICAL POWER (FIXED)	12	20 MONTHS	276
INDUSTRIAL	9	12 MONTHS	514
AIRFIELDS	7	10 DAYS	160
COMMAND & CONTROL HANOI ADD (1) COMMUNICATIONS (7)	8	10 DAYS 30 DAYS	19 70
PORtS BOMBING MINING	3	20 DAYS 10 DAYS	395 50
TRANSPORTATION ROAD/RAIL BRIDGES (10) WATERWAYS (3)	13	7 DAYS 10 DAYS	275 36
TOTAL	52		
30 DAY SORTIE REQUIREMENT			2650
FIXED TARGETS LOCs			1200 1450
TOTAL			27A

941103-308

SLIDE 27A

JCS MAP(2339/25)
 CINCPAC 66/67
 AIRSTAFF LIST

RECOMMENDED AIR CAMPAIGN (52 TARGETS)

- JCS PROPOSED
- JCS EXECUTE
- ▲ STRUCK

ELECTRIC POWER

- ▲ * ■ HON GAI TPP
- ▲ * ■ THAI NGUYEN TPP
- ▲ * ■ VIET TRI TPP
- ▲ * ■ BAC GIANG TPP
- ▲ * ■ HANOI TRANSFORMER STA
- ▲ * ■ HAIPHONG - WEST TPP
- ▲ * ■ PHU LY TPP
- HANOI TPP
- * ■ HAIPHONG - EAST TPP
- * ■ LAO CAI TPP
- * ■ TA SA HPP
- * ■ TA SA NA NGAN HPP

TRANSPORTATION

- HIGHWAY BRIDGES - 8
- RAILROAD BRIDGES - 2
- WATERWAYS - 3

PORTS/NAVAL BASES

- * ■ CAM PHA PORT
- * ■ HON GAI PORT
- * ■ HAIPHONG PORT

COMMAND & CONTROL

- * ■ HANOI INTL RADIO TRANSMITTER
- * ■ HANOI HF TELECON
- * ■ HANOI INTL RADIO RECEIVER
- * ■ HANOI MILITARY HQ FILTER CENTERS - 4

AIRFIELDS

- * ■ HANOI BAC MAI
- * ■ HOA LAC
- * ■ PHUC YEN
- * ■ KEP
- * ■ HAIPHONG CAT BI
- * ■ HAIPHONG KIEN AN
- * ■ KEP HA

INDUSTRIAL

- * ■ VIET TRI CHEMICAL
- * ■ HAIPHONG PHOSPHATE
- * ■ BAC GIANG CHEMICAL
- * ■ PHU THO CHEMICAL
- * ■ THAI NGUYEN STEEL
- * ■ HAIPHONG CEMENT PLANT
- * ■ HANOI MACHINE TOOL
- * ■ NAM DINH TEXTILE
- * ■ HANOI RUBBER

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OBJECTIVES

- TO RAISE AND SUSTAIN THE MORALE OF THE SOUTH VIETNAMESE PEOPLE
- TO MAKE THE NORTH VIETNAMESE PAY A PRICE FOR CONTINUING THEIR AGGRESSION AGAINST SOUTH VIETNAM
- TO REDUCE AND MAKE MORE COSTLY THE INFILTRATION OF MEN AND SUPPLIES FROM NVN TO SVN

CONCLUSIONS

1. THE ENEMY HAS DEMONSTRATED THE ABILITY TO ACCOMMODATE TO THE GRADUAL INCREASE OF PRESSURES AND RESULTANT PREDICTABLE PATTERNS WHICH FOLLOW THE PRESENT METHOD OF TARGET AUTHORIZATION
2. IMPORT OF MATERIALS INTO NVN TO SUPPORT MILITARY REQUIREMENTS IN BOTH NVN AND SVN CONTINUES TO INCREASE
3. DENIAL OF IMPORTS TO NVN, AS RECOMMENDED BY THE JCS AND INDIVIDUAL SERVICES AS A REQUIREMENT FOR SUCCESSFUL CONCLUSION OF THE NVN CONFLICT, IS VALIDATED BY ECONOMIC TARGETING
4. TO SIGNIFICANTLY ADVANCE U. S. NATIONAL OBJECTIVES, NVN TARGET SYSTEMS MUST BE BROUGHT UNDER ATTACK IN AN INTEGRATED AND SYSTEMIC AIR CAMPAIGN
5. AN INTEGRATED STRIKE AND INTERDICTION PLAN IS REQUIRED

RECOMMENDATIONS

- 1. AUTHORIZE CINCPAC TO IMPLEMENT**

- 2. MODIFY EXISTING CONSTRAINTS TO PERMIT
IMPLEMENTATION**

SLIDE 31

941103-312